The Importance of the Microbiology Lab for Medical Students

Clinical microbiology laboratory plays an important role in patient care by

- Providing the cause of infection and antimicrobial susceptibility data to physicians.
- Rapid diagnosis of pathogens is important for starting effective antibiotic management and improving the outcomes of treatment.

1. ***What is the importance of studying medical microbiology for a medical student?***

In medical school, microbiology is educated in the context of ***disease pathogenesis.***

Medical microbiology focuses on the prevention and treatment of diseases caused by microorganisms.

Medically-qualified doctors need to complete specialty training in medical microbiology and have the option of training further in infectious diseases and tropical medicine.

2. ***Why is microbiology important to the medical field*?**

Medical microbiologists provide services as follow:

a. Aid the diagnosis and management of infectious diseases.
b. Help ensure the safety of those at risk of acquiring infectious diseases, both in hospitals and the community

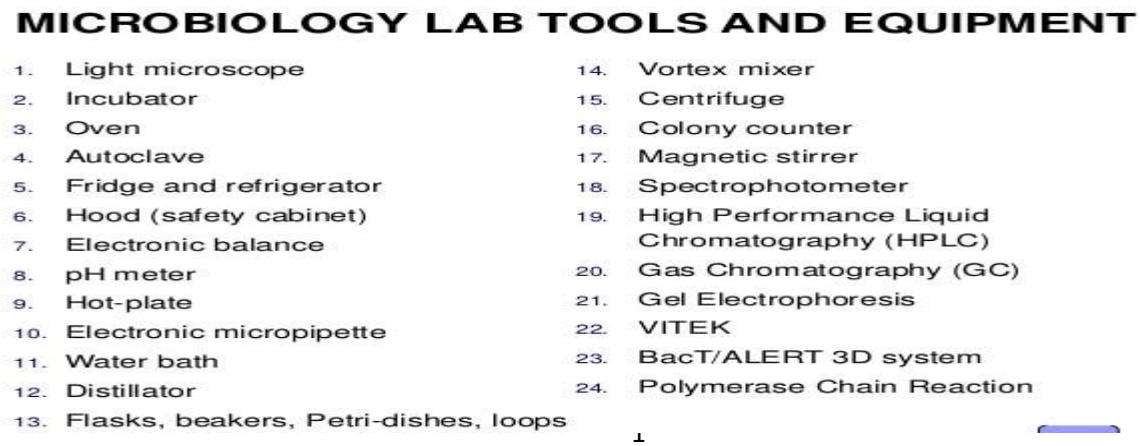
Branches of Microbiology:

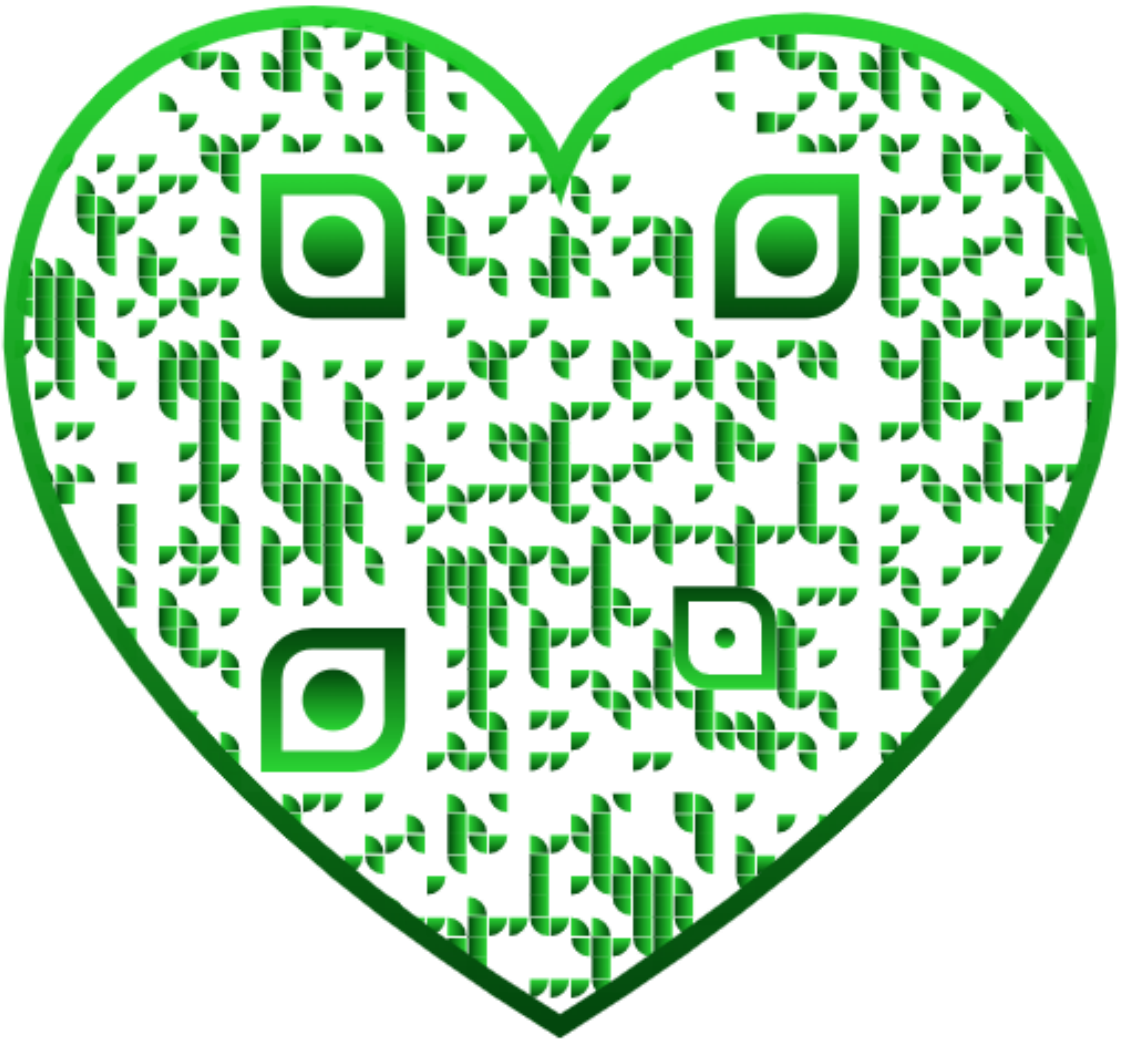
1. Bacteriology: the study of bacteria.
2. Immunology: the study of the immune system.
3. Mycology: the study of fungi, such as yeasts and molds.
4. Nematology: the study of nematodes (roundworms).
5. Parasitology: the study of parasites.
6. Phycology: the study of algae.

What are the basic tools used in a microbiology lab?

Microbiology equipment include:

Microscopes; slides; test tubes; petri dishes; growth mediums, both solid and liquid; inoculation loops; pipettes and tips; incubators; autoclaves, laminar flow hoods, and more.





Microbiology Lab
GLASS SLIDE
SPATULA
COTTON SWAB
INCUBATOR
PETRI DISH
TONGS
WIRE BRUSH
INOCULATION LOOP
COLONY COUNTER
TEST TUBE RACK
AUTOCLAVE
DISINFECTANT SPRAY
MEASURING JAR
COVER SLIP
LAB COAT
FUNNEL
BURNER
CAVITY SLIDE
CONICAL FLASK
AGAR SLANT
GOGGLES
MICROSCOPE
FORCEPS
PIPETTE
ANALYTICAL BALANCE
GLASS SPREADER
LAMINAR AIR FLOW UNIT
HOT PLATE
TRIPOD
MICROPIPETTE
CULTURE MEDIA IN GLASS BOTTLE
Microbe Notes
Comfortable Fingerhook
Push button
Quick-Release Tip Ejector
Digital Volume Display

Microbiology Equipment

Note these tools carefully and then record their use in the microbiology lab

(Your homework)

1)Microscopes 2) Slides

3)Test Tubes 4)Petri Dishes

4) Growth Mediums (Solid And Liquid)

5)Inoculation Loops 6) Pipettes

7) Tips 8) Glassware 9)Incubators

10) Autoclave 11) Micropipette

12) Laminar Flow Hood (Cabinet 1)

13) Bunsen Burner 14) pH meter

15) Vortex Mix 16) Colony Counter

17) Water Bath 18) Centrifuge

19) Hot Air Oven 20) Autoclave

21) Balance 22) Refrigerator